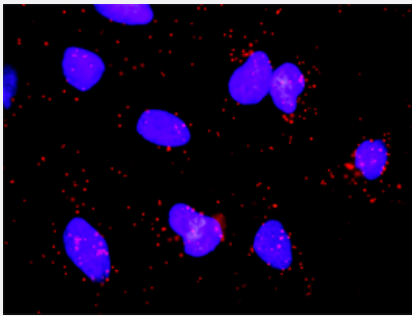


# AKT1 & BRAF Protein Protein Interaction Antibody Pair

Catalog # DI0239      Size 1 Set

## Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and BRAF. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-BRAF mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

## Specification

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Description</b>     | This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the AKT1 protein, and the other against the BRAF protein for use in <a href="#">in situ Proximity Ligation Assay</a> . <a href="#">See Publication Reference below</a> .                                                                                                                                                                                                         |
| <b>Reactivity</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Quality Control Testing</b> | Protein protein interaction immunofluorescence result.<br>Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and BRAF. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-BRAF mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University. |
| <b>Supplied Product</b>        | Antibody pair set content:<br>1. AKT1 rabbit purified polyclonal antibody (100 ug)<br>2. BRAF mouse monoclonal antibody (40 ug)<br>*Reagents are sufficient for at least 30-50 assays using recommended protocols.                                                                                                                                                                                                                                                                                                   |
| <b>Storage Instruction</b>     | Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze-thaw cycle. Reagents should be returned to -20°C storage immediately after use.                                                                                                                                                                                                                                                                                                                                   |

## Applications

- *In situ* Proximity Ligation Assay (Cell)

## Gene Info — AKT1

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entrez GeneID      | <a href="#">207</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Gene Name          | AKT1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Gene Alias         | AKT, MGC99656, PKB, PKB-ALPHA, PRKBA, RAC, RAC-ALPHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Gene Description   | v-akt murine thymoma viral oncogene homolog 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Omim ID            | <a href="#">164730</a> <a href="#">181500</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Gene Ontology      | <a href="#">Hyperlink</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Gene Summary       | <p>The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq]</p> |
| Other Designations | RAC-alpha serine/threonine-protein kinase murine thymoma viral (v-akt) oncogene homolog-1 protein kinase B rac protein kinase alpha                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Gene Info — BRAF

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Entrez GeneID    | <a href="#">673</a>                                                  |
| Gene Name        | BRAF                                                                 |
| Gene Alias       | B-RAF1, BRAF1, FLJ95109, MGC126806, MGC138284, RAFB1                 |
| Gene Description | v-raf murine sarcoma viral oncogene homolog B1                       |
| Omim ID          | <a href="#">115150</a> <a href="#">164757</a> <a href="#">211980</a> |
| Gene Ontology    | <a href="#">Hyperlink</a>                                            |

## Gene Summary

This gene encodes a protein belonging to the raf/mil family of serine/threonine protein kinases. This protein plays a role in regulating the MAP kinase/ERKs signaling pathway, which affects cell division, differentiation, and secretion. Mutations in this gene are associated with cardiofaciocutaneous syndrome, a disease characterized by heart defects, mental retardation and a distinctive facial appearance. Mutations in this gene have also been associated with various cancers, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, thyroid carcinoma, non-small cell lung carcinoma, and adenocarcinoma of lung. A pseudogene, which is located on chromosome X, has been identified for this gene. [provided by RefSeq]

## Other Designations

94 kDa B-raf protein|B-Raf proto-oncogene serine/threonine-protein kinase (p94)|Murine sarcoma viral (v-raf) oncogene homolog B1

## Pathway

- [Acute myeloid leukemia](#)
- [Acute myeloid leukemia](#)
- [Adipocytokine signaling pathway](#)
- [Apoptosis](#)
- [B cell receptor signaling pathway](#)
- [Bladder cancer](#)
- [Chemokine signaling pathway](#)
- [Chemokine signaling pathway](#)
- [Chronic myeloid leukemia](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Colorectal cancer](#)
- [Endometrial cancer](#)
- [Endometrial cancer](#)
- [ErbB signaling pathway](#)
- [ErbB signaling pathway](#)
- [Fc epsilon RI signaling pathway](#)
- [Fc gamma R-mediated phagocytosis](#)

- [Focal adhesion](#)
- [Focal adhesion](#)
- [Glioma](#)
- [Glioma](#)
- [Insulin signaling pathway](#)
- [Insulin signaling pathway](#)
- [Jak-STAT signaling pathway](#)
- [Long-term depression](#)
- [Long-term potentiation](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Melanoma](#)
- [Melanoma](#)
- [mTOR signaling pathway](#)
- [mTOR signaling pathway](#)
- [Natural killer cell mediated cytotoxicity](#)
- [Neurotrophin signaling pathway](#)
- [Neurotrophin signaling pathway](#)
- [Non-small cell lung cancer](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)

- [Prostate cancer](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [Renal cell carcinoma](#)
- [Small cell lung cancer](#)
- [T cell receptor signaling pathway](#)
- [Thyroid cancer](#)
- [Tight junction](#)
- [Toll-like receptor signaling pathway](#)
- [Vascular smooth muscle contraction](#)
- [VEGF signaling pathway](#)

## Disease

- [Abnormalities](#)
- [Adenocarcinoma](#)
- [Adenocarcinoma](#)
- [Adenoma](#)
- [Adrenal Cortex Neoplasms](#)
- [Alcoholism](#)
- [Alzheimer disease](#)
- [Amphetamine-Related Disorders](#)
- [Articulation Disorders](#)
- [Astrocytoma](#)
- [Atherosclerosis](#)
- [Basal Ganglia Diseases](#)

- [Bipolar Disorder](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Breast Neoplasms](#)
- [Calcinosis](#)
- [Carcinoma](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cell Transformation](#)
- [Chromosomal Instability](#)
- [Chromosome Aberrations](#)
- [Cognition](#)
- [Cognition](#)
- [Cognition Disorders](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colonic Neoplasms](#)
- [Colonic Polyps](#)
- [Colorectal Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Common Bile Duct Neoplasms](#)
- [Coronary Artery Disease](#)
- [Craniofacial Abnormalities](#)
- [Cystadenocarcinoma](#)
- [Cystadenoma](#)

- [Depressive Disorder](#)
- [Developmental Disabilities](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Dilatation](#)
- [Disease Progression](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Diseases in Twins](#)
- [Dominance](#)
- [Drug Toxicity](#)
- [Dyskinesia](#)
- [Dyslexia](#)
- [Ectodermal Dysplasia](#)
- [Edema](#)
- [Endometrial Hyperplasia](#)
- [Endometrial Neoplasms](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Endometriosis](#)
- [Eosinophilia](#)
- [Esophageal Neoplasms](#)
- [Esophageal Neoplasms](#)
- [Gastrointestinal Stromal Tumors](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)

- [Glioma](#)
- [Goiter](#)
- [Hashimoto Disease](#)
- [Head and Neck Neoplasms](#)
- [Hearing](#)
- [Heart Defects](#)
- [HIV Infections](#)
- [Hyperpigmentation](#)
- [Hyperplasia](#)
- [Immunologic Deficiency Syndromes](#)
- [Language Disorders](#)
- [Leukemia](#)
- [Liver Cirrhosis](#)
- [Liver Neoplasms](#)
- [Lung Neoplasms](#)
- [Lung Neoplasms](#)
- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Memory](#)
- [Memory](#)
- [Metabolic Syndrome X](#)
- [Microsatellite Instability](#)
- [Motor Skills](#)
- [Nasopharyngeal Neoplasms](#)

- [Necrosis](#)
- [Necrosis](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neoplasms](#)
- [Nerve Sheath Neoplasms](#)
- [Neurofibromatosis](#)
- [Neurofibromatosis 1](#)
- [Neuropsychological Tests](#)
- [Nevus](#)
- [Noonan Syndrome](#)
- [Obesity](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Papillomavirus Infections](#)
- [Parkinson disease](#)

- [Polycystic Ovary Syndrome](#)
- [Precancerous Conditions](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)
- [Prostatic Neoplasms](#)
- [Prostatic Neoplasms](#)
- [Psychiatric Status Rating Scales](#)
- [Psychoses](#)
- [Psychotic Disorders](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Ras oncogene](#)
- [Rectal Neoplasms](#)
- [Rectal Neoplasms](#)
- [Recurrence](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Salivary Gland Neoplasms](#)
- [Schizophrenia](#)
- [Skin Neoplasms](#)
- [Space Perception](#)
- [Stomach Neoplasms](#)
- [Syndrome](#)
- [Testicular Neoplasms](#)
- [Thrombophilia](#)
- [Thyroid Diseases](#)

- [Thyroid Neoplasms](#)
- [Thyroid Neoplasms](#)
- [Thyroid Nodule](#)
- [Thyroiditis](#)
- [Tobacco Use Disorder](#)
- [Tobacco Use Disorder](#)
- [Tuberculosis](#)
- [Urinary Bladder Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Verbal Learning](#)
- [Werner syndrome](#)